

A STUDY ON THE ANALYSIS OF USAGE PATTERN OF KISSAN CALL CENTRE (KCC) SERVICES THROUGH M-KISSAN PORTAL

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ABSTRACT

Kissan Call Centre (KCC) is an important development established by the Ministry of Agriculture and Farmers' Welfare, Government of India. The service has been started on January 21, 2004 for the benefit of farmers in India. The core aim of the initiative is to answer farmers' queries through a toll free telephone call in their own dialect. A countrywide common eleven digit Toll Free number 1800-180-1551 has been allotted for KCC. A research study was conducted in Telangana state during 2014-15, with the objective of analyzing the usage pattern of Kissan Call Centre (KCC) services through m-Kissan portal. Data were collected from m-Kissan portal. Secondary data analysis was performed by using available information and graphical representation in m-Kissan portal. District wise, sector wise, crop wise, topic wise calls were recorded and analyzed. It was revealed from the data that highest numbers of calls were received from Warangal and Mahaboobnagar districts. Among the subject, Agriculture sector 6,720 received the highest calls. Further, the data shows that in Warangal districts the farmers cultivating paddy, cotton, maize crops were used KCC services enormously. Where as in Mahaboobnagar district highest number of calls received from to paddy, cotton crop growers. Besides, in Warangal district highest numbers of calls were recorded on weather, plant protection and government schemes. At the same time, in Mahaboobnagar district highest numbers of calls were recorded on weather, plant protection and market information. Farmers are aware and usage is increasing over a period of time. Additional services of pull and push messages in the form of Agro Advisory Services on location specific farming and allied sector information may be shared to farmers in mobiles phones in the form of voice, visual and video information in local dialect. All the Agricultural Extension Centres (AECs) may be networked with m-Kissan portal platform for easing and better Transfer of Technology process.

KEYWORDS: Kissan Call Centre (KCC), Usage Pattern, Agro Advisory Services, Farmers & M- Kissan Portal

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INTRODUCTION

Farmers' decision making on farm activity by and large depends on the information received from the various sources with credibility and fidelity. The extension systems which were supposed to play a leading role in informing and advising the farmers are under severe stress due to lack of funds and inadequate manpower and are therefore unable to deliver the deliverables. Hence, the farmers do not have full access to the latest information and advice. Deciding on incomprehensive information obtained from input dealer may often lead to imperfect decisions, which ultimately result in poor crop yield, and even crop failure and eventually farmer suicides [1].

Therefore it is imperative to provide best information and knowledge not only for the farmers but also for the interest of the agriculture sector at large. In this regard, to harness the potential of ICT in agriculture, the Department of Agriculture, Corporation and Farmers' Welfare, Ministry of Agriculture and Farmers Welfare,

Government of India took a new initiative by launching of KCCs, KKMS, Farmers Portal and M-Kisan Portal. These initiatives have started yielding results since 2004 by using the marvels of ICT for the benefits of farming community. The core aim of the initiative is to answer farmers' queries through a toll free telephone call in their own dialect. A countrywide common eleven digit Toll Free number 1800-180-1551 has been allotted for KCC.

M-Kissan Short Message Service (SMS) Portal for farmers enables all Central and State government organizations in agriculture and allied sectors to give information, services, and advisories to farmers by SMS in their language, preference of agricultural practices and location. These messages are specific to farmers' specific needs and relevance at a particular point of time. These messages generate heavy inflow of calls in the Kissan Call Centres where people call up to get supplementary information.

A study on KCC calls was conducted by [5] and showed that according to the data, farmers faced major problem in pest management in kharif crops in the months of September to January of the year. KCC system is facing some problems as there are no coordination between the Government departments and the KCC. As a result, the latest market and other required information are sometimes not available in KCC and hence lack of faith among the farmers [6]. It also showed that calls to KCC increase when there is drought in the country and due to shortage of staff many calls at KCC are unanswered [2]. Therefore, it indicates that a major portion of households are still not very familiar to the technology and may be left out. By viewing the above reviews, the KCC system is functioning well at one part and stuck in other part of the development process. Hence, it is decided to analyze the usage pattern of KCC services in Telangana state of India.

METHODOLOGY

Telangana is the 29th state of India. It is an agrarian state with 55.54 lakh farm holdings. The major crops grown are Paddy, Maize, Cotton, Soyabean and Chillies. The major issues in the state are erratic distribution of rainfall and 63% of the crop is under rainfed condition, 84% of the irrigated area is through bore wells and dug wells and about 85% of farmers are either marginal or small holders. An analytical study was conducted during 2014–15 in Telangana state of India. The state was chosen purposely as previous study was not carried out pertaining to KCC. The analytical data were collected through m-Kissan portal which is an open source portal. Secondary data analysis was performed for the tabulation and interpretation. Data were analyzed by using available information and graphical representation available in m-Kissan portal dash board. The usage data on district wise, sector wise, crop wise and topic wise all the calls were recorded and analyzed for the period from January 2014 to May 2015 and the findings were discussed in tabulated form with simple percentage analysis.

FINDINGS AND DISCUSSIONS

This paper describes the usage pattern of KCC services through m-Kissan portal. The data of district wise call received by farmers from January 2014 to May 2015 on usage of KCC services was collected in m-kissan portal and presented hereunder.

It could be seen from the table (1) that highest (11,240) number of calls received in Warangal district followed by Mahaboobnagar (9,380), Karimnagar (7,820), Nalgonda (7,080), Khammam (6,470), Medak (5,910), Adilabad (5,330), Nizamabad (4,470), Rangareddy (4,310) and Hyderabad (463). The highest usage of KCC in Warangal and Mahaboobnagar may be the possible reason for that these districts received annual rain fall 800–900 mm and more than 800 mm respectively. The rainfall decides the cropping pattern and cropping system. The weather fluctuations are more visible in these districts.

Table 1: District wise Total Calls in Telangana State

Sl. No	District	Total Number of Calls
1.	Warangal	11,240
2.	Mahaboobnagar	9,380
3.	Karimnagar	7,820
4.	Nalgonda	7,080
5.	Khammam	6,470
6.	Medak	5,910
7.	Adilabad	5,330
8.	Nizamabad	4,470
9.	Rangareddy	4,310
10.	Hyderabad	463

Table 2: Sector wise Total Calls in Warangal and Mahaboobnagar District

Sl. No	Sector	Total Number of Calls	
		Warangal	Mahaboobnagar
1.	Agriculture	6,720	6,240
2.	Horticulture	4,420	3,060
3.	Animal husbandry	84	63
4.	Fisheries	2	5

The table (2), shows that highest number of calls received for agriculture from Warangal (6,720 calls) and from Mahaboobnagar (6,240 calls). In horticulture, Warangal 4,420 calls and Mahaboobnagar 3,060 calls were received respectively. It could be concluded from the results that in Warangal and Mahaboobnagar district Agriculture sector recorded has highest number of calls. The possible reason might be that farmers cultivate agriculture crops in their maximum cultivable land followed by horticulture crops. Hence, farmers need more information on agriculture and horticulture sectors.

The table (3), shows that highest number calls were related to Paddy crop (1,670), followed by Cotton (1,530), Maize (429), Green Gram (138), Ground nut (138), Sesame (73), Pigeon pea (50), Black Gram (42), Bengal Gram (30), Soybean (14), Sorghum (13), Castor (12) and Common millet (8). It could be concluded from the results that calls were higher for paddy, cotton and maize crops, the possible reason for that was the larger area of cultivation is under there three crops in Warangal district. The black cotton soil available in these districts makes the farmers to take up cotton cultivation and the productivity is also high in black soil.

Table 3: Crop wise Total Calls in Warangal District

Sl. No	Crop	Total Number of Calls
1.	Paddy (Dhan)	1,670
2.	Cotton (Kapas)	1,530
3.	Maize (Makka)	429
4.	Green Gram (Moong Bean/Moong)	138
5.	Ground nut(Pea nut/Mung phalli)	138
6.	Sesame (Gingelly/Sesamum)	73
7.	Pigeon pea (Red gram/Arhar)	50
8.	Black Gram (Urd bean)	42
9.	Bengal Gram (Gram/Chick Pea)	30
10.	Soybean (Bhat)	14
11.	Sorghum (Jowar/Great Millet)	13
12.	Castor (Rehri,Rendi, Arandi)	12
13.	Common Millet (Panivaragu/Chena/Proso Millet)	8

Table 4: Crop wise Total Calls in Mahaboobnagar District

Sl. No	Crop	Total Number of Calls
1.	Paddy (Dhan)	1,640
2.	Cotton (Kapas)	1,010
3.	Little Millet (Samai/Kutki/Kodo-kutki)	205
4.	Pigeon pea (Red gram/Arhar)	169
5.	Castor (Rehri,Rendi, Arandi)	101
6.	Green Gram (Moong Bean/Moong)	89
7.	Bengal Gram (Gram/Chick Pea)	69
8.	Black Gram (Urd bean)	54
9.	Soybean (Bhat)	46
10.	Sunflower (Suryamukhi)	32
11.	Sunhemp (Patua)	12
12.	Finger Millet (Ragi/Mandika)	10
13.	Ground nut (Pea nut/Mung phalli)	6

The table (4) shows that highest number of 1,640 calls were recorded for enquiring the details regarding Paddy followed by Cotton (1,010), Little Millets (205), Pigeon pea (169), Castor (101), Green Gram (89), Bengal Gram (69), Black Gram (54), Soybean (46), Sunflower (32), Sunhemp (12), Finger Millet (10) and Ground nut (6). It could be interpreted from the results that calls were higher for paddy and cotton crops, the possible reason for that was being farmers were cultivating those two as their major crops in Mahaboobnagar district.

The table (5), indicated that higher (1,670) number of the calls recorded on Weather parameter followed by Plant Protection (351), Marketing Information (82), Soil Testing (39), Cultural Practices (35), Field Preparation (33), Training and Exposure Visits (21), Agriculture Mechanization (17), Credit (15), Seeds and Planting Material (15), Varieties (15), Landscaping (14), Weed management (14) and Seeds (11). The study result clearly underlined that higher number of calls recorded on weather followed by plant protection. The possible reason might be that farmers were cultivating cotton as a major crop. Fluctuation in weather parameters, pest and disease incidence were more in this districts on cotton crop. Market information ranked third. This is due to avail information on market status which will fetch a good price to their produce and in order to avoid middle men dominance.

Table 5: Topic wise Total Calls in Warangal District

Sl. No	Topic	Total Number of calls
1.	Weather	1,670
2.	Plant Protection	351
3.	Government Schemes	86
4.	Market Information	82
5.	Soil Testing	39
6.	Cultural Practices	35
7.	Field Preparation	33
8.	Training and Exposure Visits	21
9.	Agriculture Mechanization	17
10.	Credit	15
11.	Seeds and Planting Material	15
12.	Varieties	15
13.	Landscaping	14
14.	Weed Management	14
15.	Seeds	11

Table 6: Topic wise Total Calls in Mahaboobnagar District

Sl. No.	Topic	Total Number of Calls
1.	Weather	1140
2.	Plant Protection	344
3.	Market Information	87
4.	Government Schemes	77
5.	Soil Testing	58
6.	Cultural Practices	36
7.	Training and Exposure Visits	26
8.	Field Preparation	19
9.	Agriculture Mechanization	19
10.	Seeds	14
11.	Seeds and Planting Material	14
12.	Water Management	14
13.	Varieties	14
14.	Credit	12
15.	Landscaping	10
16.	Weed Management	10

From the above table (6), it shows that Weather parameter has recorded highest number of calls (1,140) followed by Plant protection (344), Market Information (87), Govt. Schemes (77), Soil Testing (58), Cultural practices (36), Training and exposure visits (26), Field preparation (19), Agriculture Mechanization (19), Seeds (14), Seeds and Planting Material (14), Water Management (14), Varieties (14), Credit (12), Landscaping (10) and Weed Management (10). The result indicated that majority of calls recorded on weather followed by plant protection. The possible reason might be that the farmers were cultivating cotton under major area as one of their major crop due to contusive weather condition and also pest and disease incidence was more in this district.

CONCLUSIONS

Understanding the KCC usage; the details namely district wise, sector wise, crop wise, topic wise calls were recorded and analyzed. It was revealed from the data that highest numbers of calls were received from Warangal and Mahaboobnagar districts. Among the subject, Agriculture sector 6, 720 received the highest calls. Further, the data shows that in Warangal districts the farmers cultivating paddy, cotton, maize crops and in Mahaboobnagar district highest number of calls received from to paddy, cotton crop growers. The farmers are aware and usage is increasing in incremental form. Based on the study result, it is suggested to explore additional services of pull and push messages in the form of Agro Advisory Services on location specific farming and allied sector information may be shared to farmers in mobiles phones in the form of voice, visual and video information in local dialect. In addition, all the Agricultural Extension Centres (AECs) may be networked with m-Kissan portal platform for easing and better Transfer of Technology process.

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